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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sung-Su Jung

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EXAMINER

TADESSE, YEWEBDAR T

ART UNIT

PAPER NUMBER

1713

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/717,542	<b>Applicant(s)</b> JUNG ET AL.	
	<b>Examiner</b> YEWEBDAR T. TADESSE	<b>Art Unit</b> 1713	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-3,5-9,11,12 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) 15-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11,12 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/07/10 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3, 5-9, 11, 12 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Upon thoroughly reviewing applicants' specification; it is noted that the requirement (see claim 1, line 14) that "the supports are independently driven from each other" is new matter. Applicants' specification teaches supports that are movable in paragraphs 36 and 39 but independently movable supports are not taught in the applicants' disclosure. Instead

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applicants teach in the alternative embodiments of an invention, wherein two tables that are independently movable are disclosed in paragraph 46.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 5-9, 11, 12 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 11-13; the phrase "wherein the number of supports being same as the number of ...so that the syringes at one support dispense dispensing material to the image display parts at the corresponding support" is unclear. For the purpose of examination the phrase "wherein the number of supports being same as the number of ...so that the syringes at one support dispense dispensing material to the image display parts at the corresponding line formed on the substrate" (see applicants' specification paragraph 37) is assumed.

In claim 1, line 18; the phrase "shifting the support" is unclear. It is unclear whether applicants meant shifting the supports relative to the table or moving the supports. See applicants Figs 6C and 6D (where even and odd image display parts are shown) and specification paragraph 44 where the table is required to move "not" the supports. For the purpose of examination the phrase "shifting the one support relative to the table" or "shifting the supports relative to the table" is assumed.

***Claim Rejections - 35 USC § 102/103***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-3, 5-9, 11-12 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tisone et al (US 6,063,339).

As to claim 1, Tisone et al discloses (see Fig 1-2, 6 and column 22, lines 16-31) a dispenser capable of dispensing liquid crystal on display panel comprising, a substrate

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on which a plurality of image display parts arranged in a plurality columns and lines; a table (112) on which the substrate is loaded; supports (502) above the table (see column 22, lines 16-33 for multiple dispensers arranged in parallel), the number of supports capable of corresponding to the number of column or line of image display parts; and a plurality of syringes (512) affixed at each support (502) to dispense a material on the substrate, wherein the supports are independently driven (see Abstract for moving head and column 22, lines 16-21 for independently provided dispensers) from each other so that one of plurality of the syringes capable of dispensing material in only one of the plurality of image display parts, wherein the number of supports capable of being same as the number of the column or line of image display parts so that the syringes at one support dispense dispensing material to the image display parts at the corresponding line formed on the substrate, wherein the plurality of syringes at one support capable of dispensing the material on the odd image display parts and the plurality of syringes at the other support capable of dispensing the material on the even image display part after shifting the support and wherein the diameter of the syringes is capable of being larger than the distance between the dispensing start points of neighboring image display parts (depending the types of substrate). In any event, it would have been an obvious matter of design choice to size radius/diameter of syringes as desired, since such a modification would have involved a mere change in the size of a component. A change of size is generally recognized as being within the ordinary level of skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

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As to claim 5, in Tisone et al the table is moved in forward/backward and left/right directions (see Abstract).

Regarding claims 2-3, 6-9, 11-12 and 21, the claimed limitations are intended use of the apparatus related to the substrate and the coating material. These limitations do not add structure to the claimed apparatus.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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12. Claims 1-3 and 5-9, 11-12 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admitted art (see Fig 3) in view of Tisone et al (US 6,063,339).

With respect to claim 1, applicants' admitted art discloses (see Fig 3) the claimed invention except for a plurality of supports, wherein in the admitted art the diameter of the plurality of syringes capable of being larger than the distance between the dispensing start points of neighboring image display parts (depending the types of substrate). It would have been an obvious matter of design choice to include a plurality of supports, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. In any event, it is known to arrange a plurality of supports, such as Tisone et al teaches array of dispensers; (see column 22, lines 16-21) a plurality of syringes (512) affixed at each support (502), wherein the supports are independently driven (see Abstract for moving head and column 22, lines 16-21 for independently provided dispensers) from each other, the plurality syringes at one support capable of dispensing the material on the odd image display parts and the plurality of syringes at the other support capable of dispensing the material on the even image display part after shifting the support and wherein the number of supports capable of being same as the number of the column or line of image display parts so that the syringes at one support dispense dispensing material to the image display parts at the corresponding line formed on the substrate. It would have been obvious to one of ordinary skill in the art at the time the



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invention was made to include a plurality of supports in the admitted art to provide of array dispensing having the desired pattern.

As to claim 5, in the admitted art the table is moved in forward/backward and left/right directions (see arrows in Fig 3).

Regarding claims 2-3, 6-9, 11-12 and 21, the claimed limitations are intended use of the apparatus related to the substrate and the coating material. These limitations do not add structure to the claimed apparatus.

### ***Response to Arguments***

13. Applicants' arguments filed 03/08/2010 have been fully considered but they are not persuasive.

With respect to the requirement that the supports are moving or independently moving (see 112 rejections above), applicants' specification teaches against the movement of the supports or the syringes because of the generation and adsorption of foreign material by the image display parts (see paragraphs 36 and 39) of the substrate. Applicants teach that preferable way of forming the seal patterns is by moving the table in forward/backward and left/right directions (see paragraphs 36 and 39). In paragraph 44 applicants also teach dispensing of sealant while moving the table horizontally forward/backward and left/right directions in the formation of seal patterns (see Figs 6C and 6D). Although admitted art (Fig 3) also shows forward/backward and left/right directions movements of the table.

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It is noted that amended claim 1 does not clearly add structures to the claimed apparatus – process limitation or operation of an apparatus and substrate /display parts are included in the apparatus claims. The added limitations “wherein the number of supports being same as the number of the column or line of image display parts so that the syringes at one support dispense dispensing material to the image display parts at the corresponding line formed on the substrate” as well as others are intended use of an apparatus. In applicants’ claim 1, the positively claimed structures of an apparatus are a table, supports and a plurality of syringes affixed at each support. As explained above in the rejections Tisone et al and admitted art as modifies meet the positively claimed structure of a dispenser.

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus shows all of the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

**Furthermore, “expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim.”** *Ex parte Thibault*, 164 USPQ 666,667 (Bd. App. 1969). Thus, the **“inclusion of material or article worked upon does not impart patentability to the claims.”** *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 (USPQ 458, 459 (CCPA 1963)).

It is also noted that admitted art (see Fig 3) discloses every aspects of the claimed dispenser except a plurality of supports (a single support 314 is disclosed in the

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admitted art). However, it would have been an obvious matter of design choice to include a plurality of supports, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. In any event, it is known to arrange a plurality of supports, such as Tisone et al teaches array of dispensers; (see column 22, lines 16-21) a plurality of syringes (512) affixed at each support (502). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a plurality of supports in the admitted art to increase production or treat large size of substrate.

Examiner was unsuccessful to get in touch with attorney Valerie Hayes (left voice mails on 04/27 and 04/29/10 and received a voice mail on 04/28 from the attorney) in order to schedule interview and positively advance the prosecution of this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YEWEBDAR T. TADESSE whose telephone number is (571)272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yewebdar T Tadesse/  
Primary Examiner, Art Unit 1792